Registration **And Other Information**

Program Format:

Our programs are interdisciplinary and we make every attempt to integrate an outdoor component with most lessons. You may select up to two programs for your field trip. We will do our best to complete all programs during the length of your visit.

MarshAccess:

All school programs are available for students with special education needs through our MarshAccess program. The incorporation of specialized program adaptations and assistive technologies ensures that all learners can participate. Please indicate "MarshAccess" on the registration form under Class Information. MarshAccess registrants should choose only one program for their visit. Class size is limited to 15 students with at least one chaperone for every 5 students.

Fee and Payment:

Program fee is \$3.50 per student. There is no charge to teachers and chaperones. We ask that there be at least 1 adult for every 10 students; kindergarten classes must have 1 chaperone for every 6 students. **NEW POLICY!! Payment in full must** be received 2 weeks prior to your visit in the form of cash, money order, or a check payable to Meadowlands Environment Center. If a purchase order is required to initiate payment, please forward a copy, with all relevant trip information, to our attention for signature. Your payment must be made for the exact number of preregistered students.

Cancellation Policy:

Cancellations must be made in writing within 10 working days prior to your trip date. The letter can be faxed to 201-842-0630 or e-mailed to education@njmeadowlands.gov.



NO CANCELLATIONS will be taken over the phone. If a cancellation is received after 10 working days, a refund will not be issued.

Registration:

All school program registration will now be taken via our web-site only! We will not be taking registration by phone.

Visit our

website at

www.njmeadowlands.gov/

Registration will open on Friday, September 8th for fall, winter and spring field trips.

Trips are scheduled on a first come first served basis. Before logging on, please have the following information with you:

- Your program date
- An alternate date
- Program choice(s)
- Names of teacher's coming on the trip
- Number of students
- Number of classes *
- Grade level/ability
- * We ask that you keep classes to their regular size. Śtudents will have a better experience if class sizes are kept below 30.

Trip Preparation:

Some program choices may have a Pre/ Post Lesson Package available. These should be used to prepare your students for their field trip. Packages contain background information, assessment activities, NJCCCS, and important vocabulary words. Click under the "Educator" tab to access the Pre/ Post Lesson plans.

Questions:

Any questions regarding programs should be e-mailed to:

education@njmeadowlands.gov.

For specific information on our education programs visit our website at:

www.njmeadowlands.gov/ec

Environment Center Hours: Monday through Friday 9:00 a.m. - 5:00 p.m Saturday & Sunday 10:00 a.m. - 3:00 p.m.

Environment Center offices at least one week prior to visiting to request disability related accommodations. Please contact the Meadowlands

Trails Open Daily

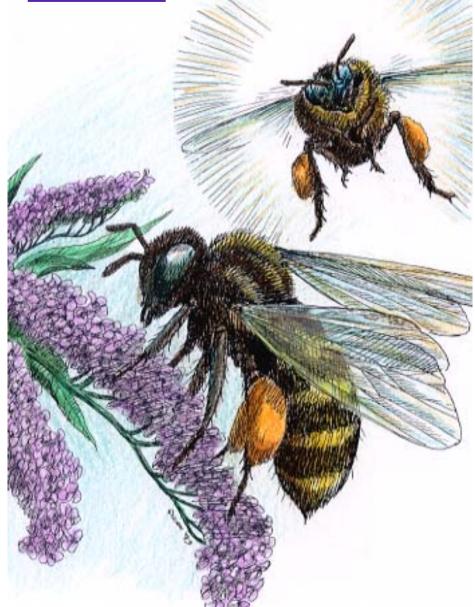
weather permitting



Meadowlands Environment Center Two DeKorte Park Plaza Lyndhurst, New Jersey 07071



2006/2007 SCHOOL PROGRAMS



A NEW JERSEY MEADOWLANDS COMMISSION FACILITY

RAMAPO COLLEGE OF NEW JERSEY

Two DeKorte Park Plaza Lyndhurst, NJ 👑 07071 Phone: 201-460-8300 **Fax:** 201-842-0630

Program Selections



SALTY STORIES (Grades K-1)

Journey through the salt marsh food chain, using interactive storytelling and a take-home nature craft. Students will discover the variety of life within this local habitat.

Indoor (1 hr.) NJCCCS: 5.1, 5.4, 5.5, 5.6 5.10

MARSH MUCKERS

(Grades K-1)

Introduce students to the wonders of the wetlands with fun and safe sensory awareness activities. Through live animal interaction, students will collect, sort, count and observe local organisms.

Indoor (1 hr.) NJCCCS: 3.4, 4.1, 5.1, 5.3, 5.5, 5.10

SALT MARSH SENSES

(Grades K – 1)

Come explore more than just the "sights" and "sounds" of the Meadowlands in this tantalizing senses program. Through stations, craft and use of our Interactive Learning Center, students will be challenged to see, hear, taste, smell and feel their way through the salt marsh habitat.

NJCCCS: 5.1, 5.4, 5.6, 5.10

INCREDIBLE INSECTS

(Grades 1-3) April—October

Learn about the largest group of animals in the world. Classification, life cycles, and characteristics will be investigated. Students will collect and study live insects and discuss their role in local habitats.

Indoor/Outdoor (1.5 hrs.) *NJCCCS: 5.1, 5.5, 5.10*

PAWS AND CLAWS, **BEAKS AND FEET**

(Grades 1-3)

Whose feet are designed for swimming? Whose beak can hold water? What good is a shell anyway? Find out how animals play "survivor" in the salt marsh. Through cooperative learning, students will investigate adaptations of animals.

Indoor (1 hr.) NJCCCS: 3.3, 5.1, 5.4, 5.5, 5.10

MARSH EXPLORERS

(Grades 2-3)

April – November

Explore the life of the salt marsh community. Students will be introduced to our local waters, and then become "field biologists", collecting and recording live samples and practicing their observation skills.

Outdoor (2 hrs.) NJCCCS: 3.3, 5.1, 5.4, 5.5, 5.8, 5.10

December - March

Explore the life of the winter salt marsh. Students will be introduced to our local waters, and then compare and contrast indoor exhibits and outdoor observations to discover how this community survives seasonal changes.

Indoor/Outdoor (2 hrs.) NJCCCS: 3.3, 5.1, 5.4, 5.5, 5.8, 5.10

THE SHAPE OF NATURE

(Grades 2-3)

Using a variety of artistic techniques, students will create a field sketch journal and be able to recognize geometric shapes in nature. No art background required!

Indoor/Outdoor (1 hr.) NJCCCS: 1.3, 4.2, 5.1, 5.3, 5.5



WATT'S UP WITH ENERGY?

(Grades 3 and 4)

Using maps and basic information your students will help Mother Nature and Mr. Energy determine where to place a new renewable power station. They will learn about energy conservation and solar and wind power systems. Indoor (1.5 hrs)

NJCCCS: 5.4, 5.8, 5.9, 5.10, 6.6 **PEEK AT THE PAST**

(Grades 4-6)

Find out how the early settlers lived in the Meadowlands. Students will become junior archaeologists and analyze artifacts. This interpretive journey will allow students to identify natural resources from the past and the present.

Indoor (1.5 hrs.) NJCCCS: 3.3, 3.5, 5.1, 5.2, 5.10, 6.5, 6.9

ASTOUNDING ADAPTATIONS

What helps animals survive in the wild? Through simulated habitat stations and live animal interaction, students work cooperatively, manipulating tools to investigate the

animals feed, move, and protect themselves.

Indoor (1.5 hrs.) NJCCCS: 3.3, 5.1, 5.4, 5.5, 5.10



WORMS EAT MY GARBAGE

(Grades 4-6)

Get down and dirty with the inhabitants of our compost bin as they turn our household garbage into soil. Enjoy discovering nature recyclers using stereomicroscopes and hand

Indoor (1.5 hrs.) NJCCCS: 3.1, 3.2, 5.1, 5.4, 5.5, 5.8, 5.10

MIGRATION JOURNEYS

(Grades 4-6)

Travel on the aerial highway known as the Atlantic Flyway. Students experience a simulated journey full of the many obstacles that birds encounter on their seasonal migration. Using maps, measurement, and math, students will follow the route of an osprev.

Indoor (1.5 hrs.) NJCCCS: 3.3, 4.2, 5.1, 5.5, 6.7, 6.9

AMAZING ARTHROPODS

(Grades 4-6)

Students will classify these crusty critters using collection, observation and organizational skills. Through the use of tools and tables, students will differentiate among these fascinating creatures.

Indoor/Outdoor (1.5 hrs.) NJCCCS: 5.1, 5.4, 5.5, 5.10

ESTUARY EXPLORERS

(Grades 4-6)

April – November

Discover the relationship between the salt marsh and estuary. Field experiences will have students testing water samples, collecting live specimens, and examining plant life. Food chains, adaptations, and wetland values will be discussed.

Outdoor (2 hrs.) NJCCCS: 3.3, 5.1, 5.4, 5.5, 5.6, 5.8, 5.10

December - March

Discover how our local estuary adapts to the changing seasons. Students will conduct tests on estuary water and participate in a winter salt marsh scavenger hunt. Food chains/webs and wetland values will be discussed.

Indoor/Outdoor (2 hrs.) NJCCCS: 3.3, 5.1, 5.4, 5.5, 5.6, 5.8, 5.10

RAPTOR-OLOGY

(Grades 4-6)

In learning about birds of prey, many hands-on simulations keep students engaged in activities such as "Raptor Aerobics". Students will learn the importance of avian adaptations for survival.

Indoor (1 hr.) *NJCCCS*: 2.5, 5.1, 5.5, 5.10



NATURAL REFLECTIONS

(Grades 4-6)

Express your scientific findings through art during this introduction to "Field Sketching – The Art of Observation". Students develop concentration, observation, and drawing skills. No art background required!

Indoor/Outdoor (1.5 hrs.) NJCCCS: 1.2, 1.3, 3.2, 4.2, 5.1, 5.3, 5.5



POWER MAPPING

(Grades 5-8)

Using data and maps, students will be able to compare and contrast different electrical generating options. Based on their research they will then make recommendations as to how we might produce power now and in the future.

Indoor (1.5 hrs) NJCCCS: 5.4, 5.7, 5.8, 5.9, 5.10, 6.6



PLANKTON PICKERS

Using nets, stereomicroscopes, and slides, students will be introduced to the microscopic world of plankton. Come discover the important role these tiny organisms play in the estuarine food web.

Indoor (1 hr.) NJCCCS: 5.1, 5.4, 5.5, 5.10

CAN YOU DIG IT?

(Grades 7 - 8) *April – November* Come to the Meadowlands to uncover and discover the mysteries of the past. Students will be introduced to some of the simple techniques used by archaeologists in conducting field studies. After using the "tools of the trade," they will carry out an archaeological dig classifying and identifying their wares.

Indoor/ Outdoor (1.5 hrs.) NJCCCS: 5.1, 5.2, 5.10, 6.2



ECOLOGY OF THE ESTUARY

(Grades 7-12)

April - November

Explore the interconnected life of the salt marsh community. Through field experience, water chemistry, and data analysis, students will discover the values and function of wetlands and estuaries.

NJCCCS: 3.2, 3.5, 4.1, 4.2, 4.4, 5.1, 5.3, 5.4, 5.5, 5.6, 5.8, 5.10

December - March

Explore the seasonal variability of an estuarine community. Students will conduct water tests and a winter field survey to discover the hidden relationships and values of our tidal wetlands.

Indoor/Outdoor (2 hrs.) NJCCCS: 3.2, 3.5, 4.1, 4.2, 4.4, 5.1, 5.3, 5.4, 5.5, 5.6, 5.8, 5.10

BIODIVERSITY BASICS

(Grades 7-12)

Learn with your students the definition of "Biodiversity" and its value to all of Earth's ecosystems. Through mathematics, games, and field surveys, students explore the threats to and benefits of our planet's great variety of life.

Indoor/Outdoor (1.5 hrs.) NJCCCS: 3.2, 3.3, 4.1, 5.1, 5.3, 5.5, 5.10

WHAT'S IN THE WATER

Learn how scientists monitor the water quality of a river to determine if it is safe for fish to live in. Using the latest probeware technology, students will take and analyze water samples from the salt marsh and gain knowledge of possible ranges of pH, dissolved oxygen, and other parameters.

Indoor/Outdoor (2 hrs.) NJCCCS: 4.3, 4.4, 4.5, 5.1, 5.3, 5.4, 5.6, 5.8,

WETLANDS DELINEATION

Discover how field biologists determine the boundaries of wetlands through the use of topographic maps and authentic tools. Students will take and analyze soil samples, conduct plant surveys, and record their findings. NJCCCS: 3.2, 3.3, 5.1, 5.2, 5.4, 5.5, 5.8, 5.10, 6.7, 6.9

FIELD JOURNALING

Enhance students' observation skills using bio-illustration. Learn what goes into the production of a local field guide. Students will further their knowledge of indigenous species. NJCCCS: 1.2, 1.3, 3.2, 5.5, 5.10



MCS: (Marsh Crime Scene) **DECOMPOSED**

(Grades 9-12)

Join Scoops, a resident naturalist of the Meadowlands Environment Center as he and your class solve the mystery of the marsh animal murder. Students will use forensic science and DNA analysis to ascertain who might be responsible for the death of this wetland creature. This is a real crime scene investigation. so come prepared to investigate!

Indoor 2 hours NJCCCS: 4.3, 4.4, 5.3



FISH MURDER MYSTERY

In this exciting and challenging two-part program, students solve a fish kill mystery in the Hackensack River. Using hands-on water sampling techniques and problem-based learning strategies, students decide who is responsible for causing a massive fish kill. Indoor/Outdoor (all-day program) NJCCCS: 3.1, 3.3, 4.3, 4.4, 4.5, 5.1, 5.3, 5.4, 5.6, 5.8, 5.10, 6.5



Students will look at their personal energy expenditure and ways that it can be reduced. They will then analyze a number of different energy options to provide power. Using maps students will determine which options are best for a particular state.

Indoor (2 hrs.)

NJCCCS: 5.4, 5.7, 5.8, 5.9, 5.10, 6.6